

REMARKS/ARGUMENTS

Reconsideration of this patent application is respectfully requested in view of the foregoing amendments, and the following remarks. Claims 17-22 and 24-30 are in the application. Claim 23 has been canceled. Claims 17 and 24 have been amended. No new matter has been added.

The Examiner rejected claim 17 under 35 U.S.C. §112. Applicant has amended claim 17 to delete the phrase beginning with "i.e.,". It is now believed that the claims are in compliance with 35 U.S.C. §112.

The Examiner rejected claims 17-30 under 35 U.S.C. §103 as being unpatentable over GB 1,564,077 in view of Baranovski et al. Applicant respectfully traverses.

Applicant has amended claim 17 to include the elements of claim 23, now canceled. Claim 24 has been amended to depend from claim 17.

GB 1 564 077 relates to a torch for gas shielded arc welding using consumable electrodes. The torch comprises a metal tube (1) through which both an electrode wire and shielding gas are arranged to pass to an end portion thereof. Further, a contact tube (2) is provided at the end portion of the metal tube (1). The contact tube (2) is provided with a passage (3) to allow the electrode wire to pass coaxially out of the tube (1). The contact tube (2) and the adjacent end portion of the tube (1) are disposed within a nozzle (4) in the form of a cap of a ceramic refractory material. Between the contact tube (2) and the nozzle (4) there is a annular space to which the shielding gas passes throw to the end portion of the contact tube (2). This reference does not show a protective cap for the contact tube as claimed in the present patent application. Using teachings of GB 1 564 077, it is not possible to avoid the problem of weld spatters adhering to the contact tube. The welding torch according to GB 1 564 077 will show weld spatters, in particular, on the contact tube (2) clogging the annular space between the contact tube (2) and the nozzle (4). This will impede the flow of the shielding gas to the end of the contact tube (2) where an electric arc is building up. The nozzle (4) cannot be interpreted as a protective cap according to the present invention.

Baranovski et al. shows a high-velocity thermal spray apparatus and a method of forming materials, which differs from a welding torch as described in the present patent application. In such a high-velocity thermal spray apparatus, weld spatters do not occur. As can be seen from Baranovski et al., the international classification does not correspond with the international patent classification of the present patent application. Therefore, a person skilled in the art would not combine the documents cited in the present Office Action.

Even if the nozzle housing (11) of the high-velocity thermal spray apparatus according to Baranovski et al. would be regarded as a protective cap for the contact tube according to the present invention, it would not be possible to change the protective cap in a simple and rapid manner. Contrary to the construction of Baranovski et al., the protective cap (27) according to the present invention can be slipped on or placed over the contact tubes (40, 41) or over a partial region of the contact tubes (40, 41) in a simple and rapid manner. To protect the contact tubes (40, 41), the protective cap (27) according to the present invention covers the space between the gas nozzle (28) and the contact tubes (40, 41) as can be seen from figure 7 of the

present patent application. To enable the shielding gas passing through, it is necessary to arrange bores (38) in the housing (33) of the protective cap (27), as claimed in amended claim 17. This feature is not taught or suggested by either of the cited references.

Accordingly, Applicant submits that claims 17-30 are patentable over the cited references, taken either singly or in combination. Early allowance of the amended claims is respectfully requested.

Respectfully submitted,  
Walter WIMROITHER ET AL.

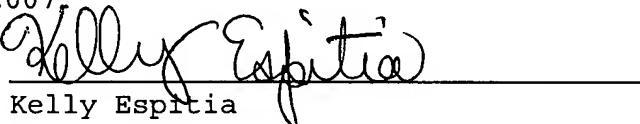


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